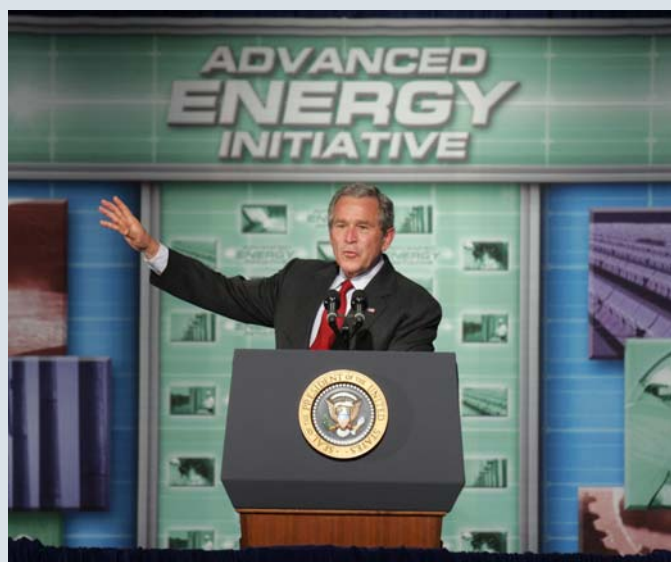


Advanced Energy Initiative

The United States consumes nearly 20.7 million barrels of oil every day, of which only 35 percent is produced domestically. To take the United States beyond a petroleum-based economy, foster economic growth and protect the environment, President George W. Bush launched the Advanced Energy Initiative in February.

"For the sake of our economic and national security, we must reduce our dependence on foreign sources of energy—including on the natural gas that is a source of electricity for many American homes and the crude oil that supplies gasoline for our cars," the President said. The initiative provides for a 22 percent increase in funding for clean energy technology research at the U.S. Department of Energy.

"To change how we power our homes and offices, we will invest more in zero-emission coal-fired plants, revolutionary solar and wind technologies, and clean, safe nuclear energy. To change how we power our automobiles, we will increase our research in better batteries for hybrid and electric cars and in pollution-free cars that run on hydrogen," he added. "We will also fund additional research in cutting-edge methods of producing ethanol, not just from corn, but from



White House photo by KIMBERLEE HEWITT

President George W. Bush, at the Limerick Generating Station in Pennsylvania, urges the advancement of nuclear energy as part of a diversified U.S. energy policy that will make America more dependent on renewable sources of energy.

wood chips, stalks or switch grass."

Since 2001 the United States has spent nearly \$10 billion to develop cleaner, cheaper and more reliable alternative energy sources. The Advanced Energy Initiative provides for an increase in funding in two key areas: Changing the way Americans fuel their vehicles and changing the way they power their homes and businesses.

The transportation sector receives nearly all of its energy from petroleum products and

accounts for two-thirds of petroleum use in the United States. Crude oil prices, which hovered in the \$15-\$25 per barrel range from the mid-1980s until 2002, remained above \$40 since February 2005 and currently are at more than \$70 a barrel. To reduce America's vulnerability to disruptions in oil supply it is important to increase domestic production. There is also a need to speed up deployment of efficient diesel vehicles and come up with renewable alternatives to

gasoline and diesel fuels. Several steps have been taken in this direction and tax incentives led to the sale of more than 200,000 hybrid vehicles (automobiles with more than one power source) in 2005.

To further improve the United States' energy security, the initiative proposes significant new investments and policies in three areas: advanced batteries, cellulosic ethanol and hydrogen vehicles.

The consumption of natural gas in the United States is projected to grow to 2.1 billion cubic meters per day by 2025. Compared to coal-fired power plants, natural gas power plants emit less air pollution and cost less to build. As a result, demand for natural gas in the power sector has increased steadily over the past 15 years.

The initiative aims to complete the President's commitment to \$2 billion in clean coal technology research funding and ensure the resulting innovations reach the marketplace. The initiative has set a goal of reducing the cost of solar photovoltaic technologies so that they are cost-effective by 2015. It also aims to develop a new Global Nuclear Energy Partnership to address the issue of spent nuclear fuel, eliminate proliferation risks and expand the promise of clean and affordable nuclear energy.

—D.K.